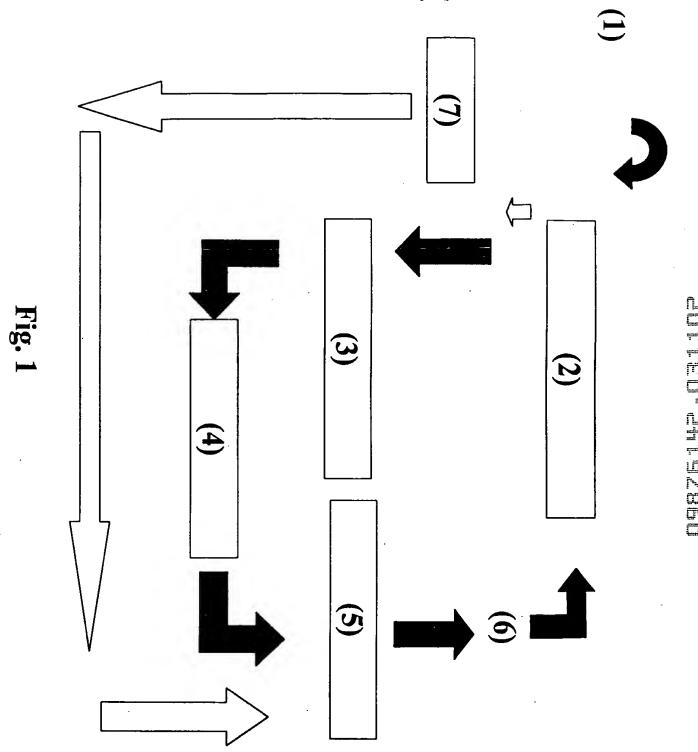
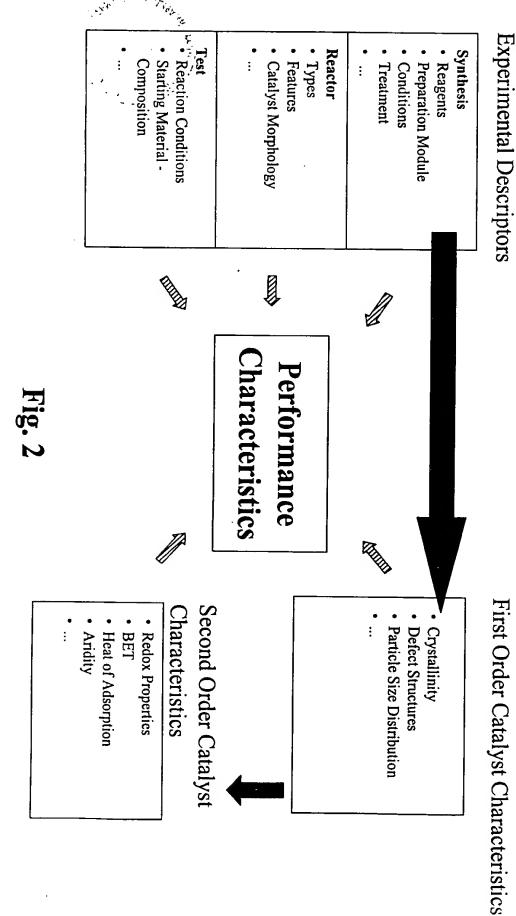
Title: COMPUTER-AIDED OPTIMIZATION OF SUBSTANCE LIBRARIES
Inventor(s): Stephan SCHUNK et al
Appl. No.: 09/876,142



COETHE DETTOE

#### **Performance Characteristics**

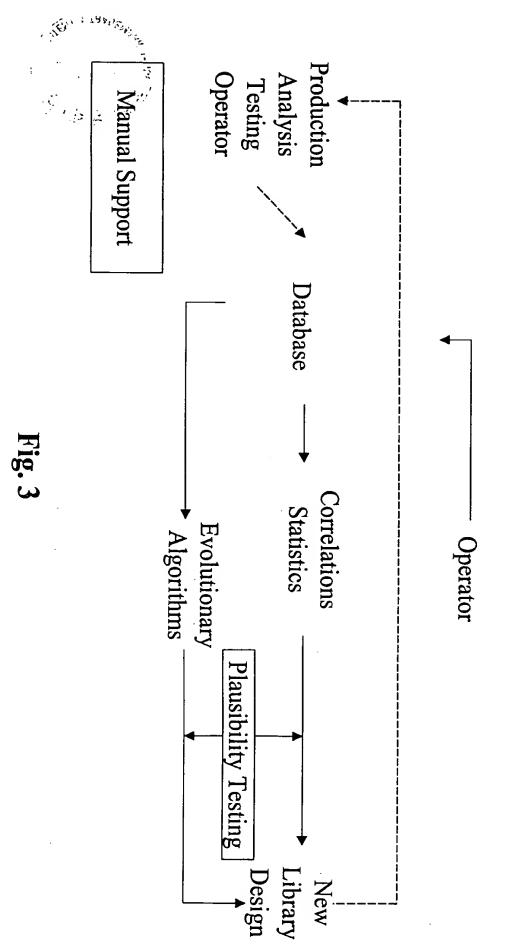


Title: COMPUTER-AIDED

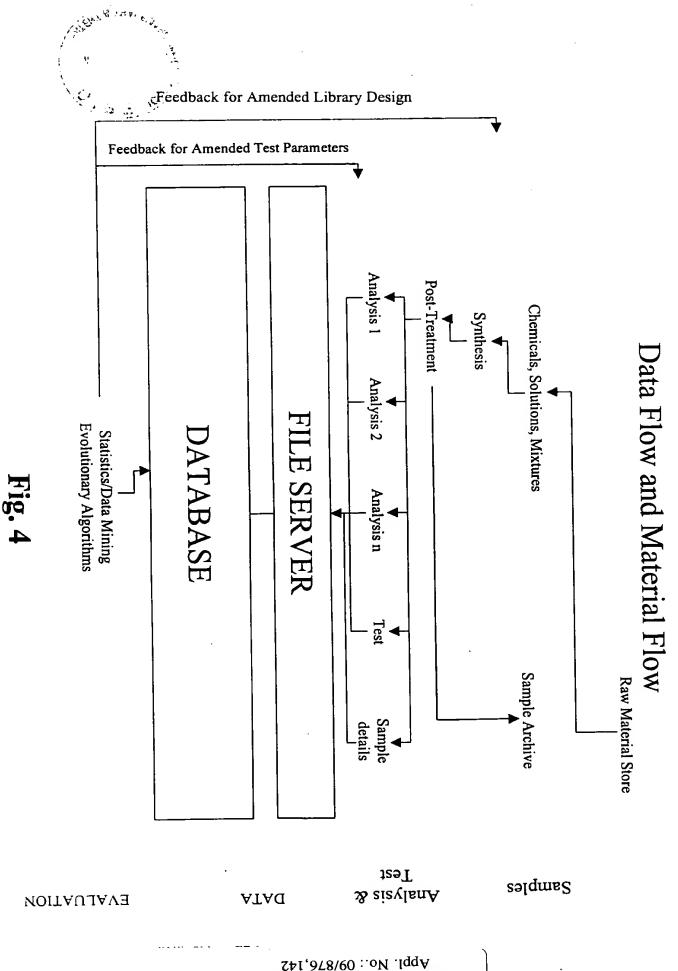
OPTIMIZATION OF SUBSTANCE
INVENTOR(s): Stephan SCHUNK
Appl. No.: 09/876,142

Initial Substance

Library



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### Original Library Design and Tests Using the Entire Parameter Space

Support oxide Reduction Oxidation Precursor Reynolds pН Feed C<sub>1</sub> ຈ Step 1: Design of Library, Test and Process Conditions Support oxide Reynolds Oxidation Reduction Exchange Precursor Heat Feed '2\\ \opens{c} PH Experiment 1 Step 2: Data Acquisition EL PARTE 22.32.5 Experiment 2 **Expairment n** Jisaki, (Linear) 18.84.85

‡

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# Regression Analysis, Energies of the Parameter Space

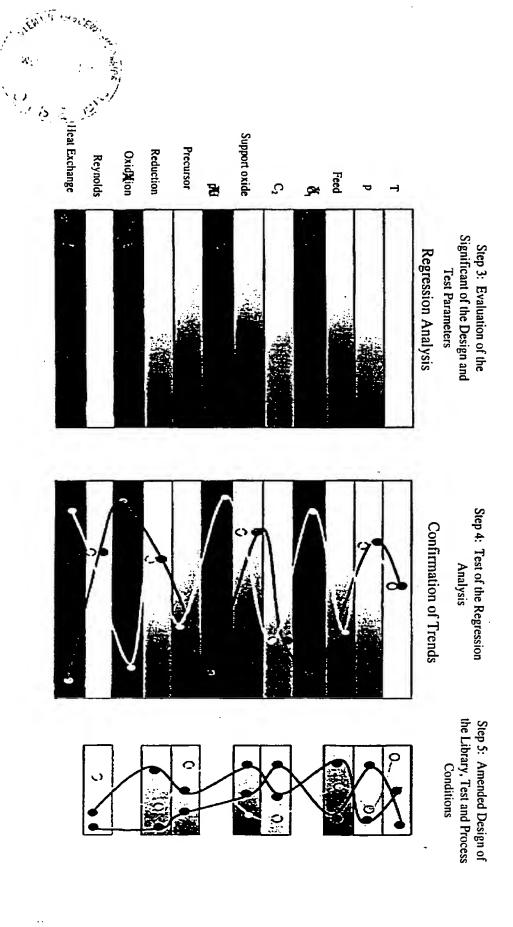
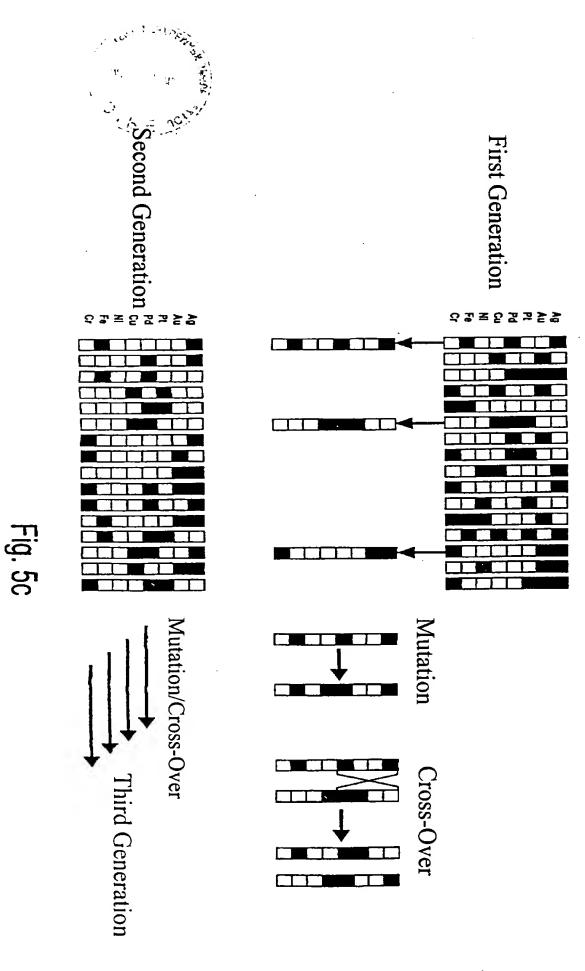


Fig. 5b

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#### Principle of Genetic Algorithms



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## Sensitivity Analysis of the Parameters of the Initial Library Pareto Diagram

Pareto Chart of Standardized Effects; Variable: U\_NOX 7 factors, 5 Blocks, 96 Runs; MS Residual=128,2875

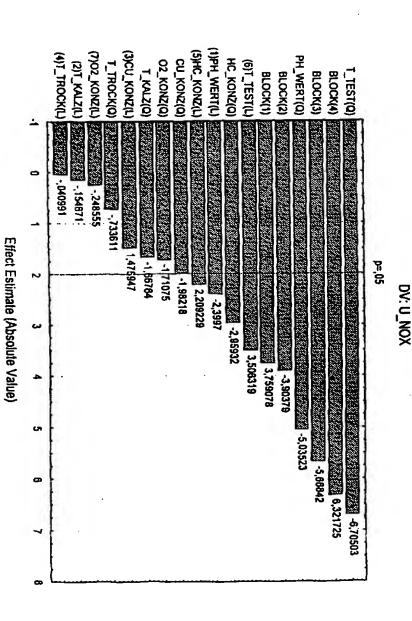


Fig. 6

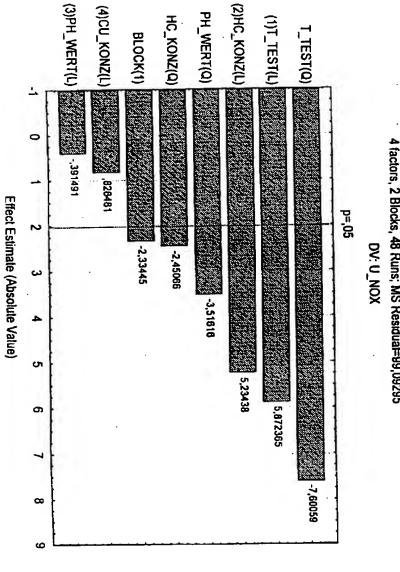
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Fig. 7

#### of the 1st Optimized Library Pareto Diagram Sensitivity Analysis of the Parameters





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